

# Trendlines

January/February 2011

*Perspectives on Utah's Economy*



## Looking Forward to 2011

Utah's New  
OCCUPATIONAL  
PROJECTIONS  
2008-2018  
Part Deux

The Education  
and Training  
Face of Utah  
**JOBS**  
Now and  
in 2018



## ***Trendlines***

is published every other month by the Utah Department of Workforce Services, Workforce Research and Analysis. To read, download, or print this publication (free), see our Internet site: <http://jobs.utah.gov/wi>. Click on "Publications" then select the one you want from the list.

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DWS-03-44-0111

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# **Trendlines**

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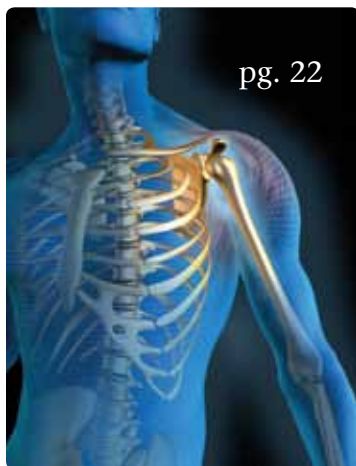
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## A Look Forward to 2011



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# Is Washington County **Reawakening?**



**W**ashington County (the St. George area) has been Utah's high flyer in the economic circus. But the recent recession even knocked Washington County off of its high wire, meaning even it has to re-gather itself and climb back up the ladder to lofty economic heights. For several years this seemed a far off task. Washington County was Utah's first county to slide into recession (a direct result of being Utah's most high-flying housing market), and the depths of its fall made it both dramatic and anticipated that it would stay down longer than other parts of Utah.


But anecdotal evidence may suggest Washington County's employment growth is just about ready to reawaken. The housing market was the number one casualty of this recession (actually it can be argued as the cause), and Washington County is probably Utah's most sensitive county when following housing as an economic indicator and signaler of future employment performance.

Washington County housing permits had fallen more than any other county, but through the first eight months of 2010, its housing permit approvals are up

Sometimes anecdotal evidence sends telling signals.

61 percent relative to the same period in 2009. Compare that to a nearly 10 percent decline statewide.

Here comes the antidotal evidence. Workforce Services economist Lecia Langston lives in Washington County. She has observed firsthand the recession's impact upon the Washington County new home market and undeveloped subdivisions. She observes that even though it is small, subdivisions that had no new home building in them for several years are now starting to see a few new homes built here and there. Sometimes anecdotal evidence can send telling signals. Its value is it does it sooner than the resulting statistics.

The wait for Washington County's economy to reawaken may be over. This would be both welcome and slightly ahead of previous forecasts. 

## FYI For your information

### Wind Power: Tapping a New Job Market

In 2009, wind energy made up 1.8 percent of U.S. power generation, an increase from 1.3 percent in 2008. However, wind power accounts for about 50 percent of renewable energy, which includes wind, solar, hydroelectric, and geothermal power, as well as energy from biomass and wood or wood-derived products.

According to the American Wind Energy Association (AWEA) an estimated 85,000 Americans are employed in the wind power industry and its related fields.

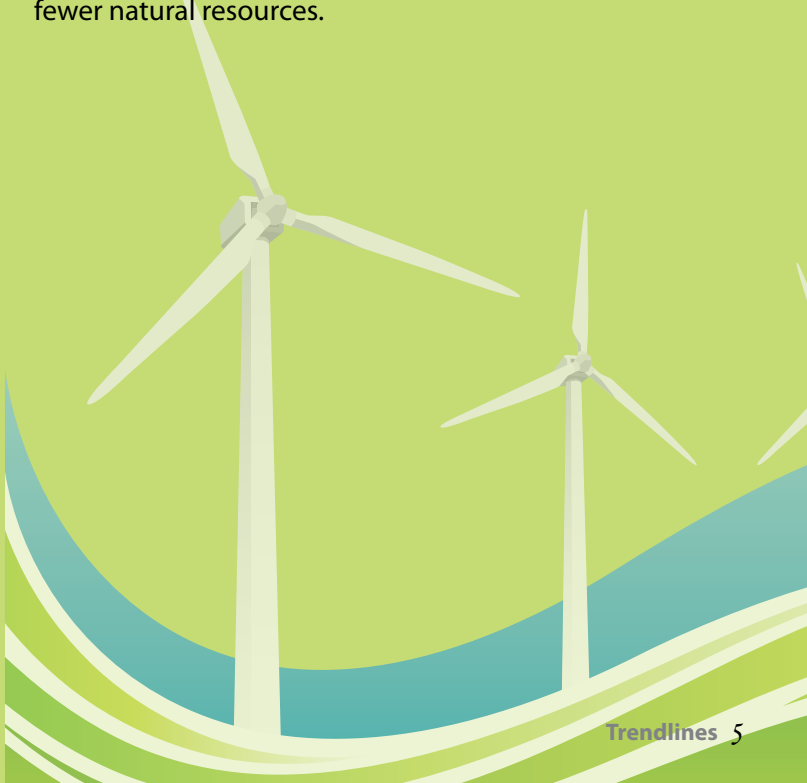
According to AWEA, in 2000, installed wind energy capacity in the United States was under 3,000 megawatts. It is now over 35,000 megawatts, enough electricity to power approximately 9.7 million homes.

#### Resources:

•[http://bls.gov/green/wind\\_energy/](http://bls.gov/green/wind_energy/)

#### BLS Definition of Green Jobs

Green jobs either produce goods or provide services that benefit the environment or conserve natural resources or make an establishment's production processes more environmentally friendly or use fewer natural resources.





# What is the American Community Survey?



The ACS is a large survey that provides regularly updated estimates of a wide variety of demographic and socioeconomic variables. Five years of ACS sample addresses includes approximately 15 million households.

Traditionally the Census has consisted of a “short form” that was sent to most households asking a few basic questions and a “long form” that was sent to a sample of households asking for data on many detailed characteristics. Beginning with the 2010 Census, the census collected information using only the short-form and did away with the long-form. Instead of collecting the long-form data as part of the 2010 Census, the Census Bureau is now collecting and disseminating this information throughout the decade by adding the American Community Survey (ACS). The ACS is a very large mailout/mailback survey that provides regularly updated estimates (rather than the point-in-time estimates provided by the decennial census data) of a wide variety of demographic and socioeconomic variables that are valuable for many business applications. Five years of ACS sample addresses will include approximately 15 million households.

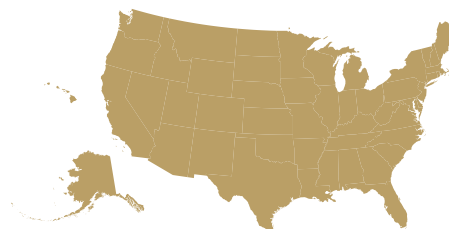
ACS data reflect population and housing characteristics over a period of time—1 year, 3 years, or 5 years. The population size of a geographic area determines the type of ACS estimates that are provided. Estimates based on 1 year of data collection are provided for geographic

areas with populations of 65,000 or more, 3-year estimates are provided for areas of 20,000 or more and 5-year estimates will be provided for areas of the smallest population size (including small towns, census tracts, and block groups). Table 1 gives a sense of which types of areas are large enough to receive 1-year and 3-year estimates. As the number of areas in column 1 makes clear, the vast majority of geographic areas will receive only 5-year estimates. The Census Bureau also plans to release ACS data for ZIP Code Tabulation Areas (ZCTAs). Because most ZCTA's are small they will only be released in the form of 5-year estimates.

Since 2005 was the first year of ACS data collection at full sample, the first set of 1-year estimates was released in 2006. The first set of 3-year estimates was released in 2008, and the first set of 5-year estimates will be released in December 2010. Following 2010, the Census Bureau will release new 1-year, 3-year, and 5-year estimates every year.

The U.S. Census Bureau is a bureau of the U.S. Department of Commerce. This article was adapted from the ACS handbook *A Compass for Understanding and Using American Community Survey Data*. ①

## Geographic Areas Published in the 1-year, 3-year, and 5-year American Community Survey Estimates



Geographic Areas	1-year estimates		3-year estimates		5-year estimates
	Areas with a *Population of 65,000 +		Areas with a *Population of 20,000 +		**All areas
	number	percentage	number	percentage	number
United States	1	100%	1	100%	1
States, the District of Columbia, and Puerto Rico	52	100%	52	100%	52
Counties	805	25%	1,888	59%	3,221
Census Tract	0	0%	0	0%	66,322
Block Group	0	0%	0	0%	211,274
Cities (incorporated cities and census designated places)	540	2%	2,115	8%	25,302
Metropolitan Statistical/Micropolitan Statistical Area	517	54%	926	97%	953
Combined Statistical Area	126	99%	127	100%	127
Urban Area	396	11%	865	24%	3,625
Congressional Districts - 111th	435	100%	435	100%	435
State Legislative District (Upper)	0	0%	0	0%	1,983
State Legislative District (Lower)	0	0%	0	0%	4,791
Public Use Microdata Area <sup>1</sup>	2,101	100%	0	0%	0
School Districts	972	28%	3,371	80%	13,892

<sup>1</sup> Public Use Microdata Areas (PUMAs) are published for ACS 1-year estimates only. \* Counts based on geographic area boundaries as of January 1, 2009 and population estimates from the July 1, 2009 Census Bureau Population Estimates. \*\* The Census Bureau does not publish ACS data for blocks.



*a  
Look  
at 2011*

*How do those who unleash  
creativity currently feel  
about risk?*



Another year is upon us, and it's time to forecast how the economic picture may develop as the next 12 months unfold. In a nutshell, I believe 2011 will be much of a repeat of 2010. The worst of the economic downturn is behind us, recovery will continue being slow and methodical, with low job growth and high unemployment keeping the recession's impact fresh upon people's minds. The possibility of falling into another recession remains in the picture, yet is not perceived as the most likely scenario.

I see several factors conspiring to keep employment activity on a sub-par pace in 2011—continued housing woes, low Gross Domestic Product (GDP) growth rate forecasts prompting the business community to believe it can continue using only productivity gains to keep pace, and the CEO community remaining risk averse and not anxious to embrace risky economic-enhancement projects.

It was the housing market that set off this whole economic slide, and it

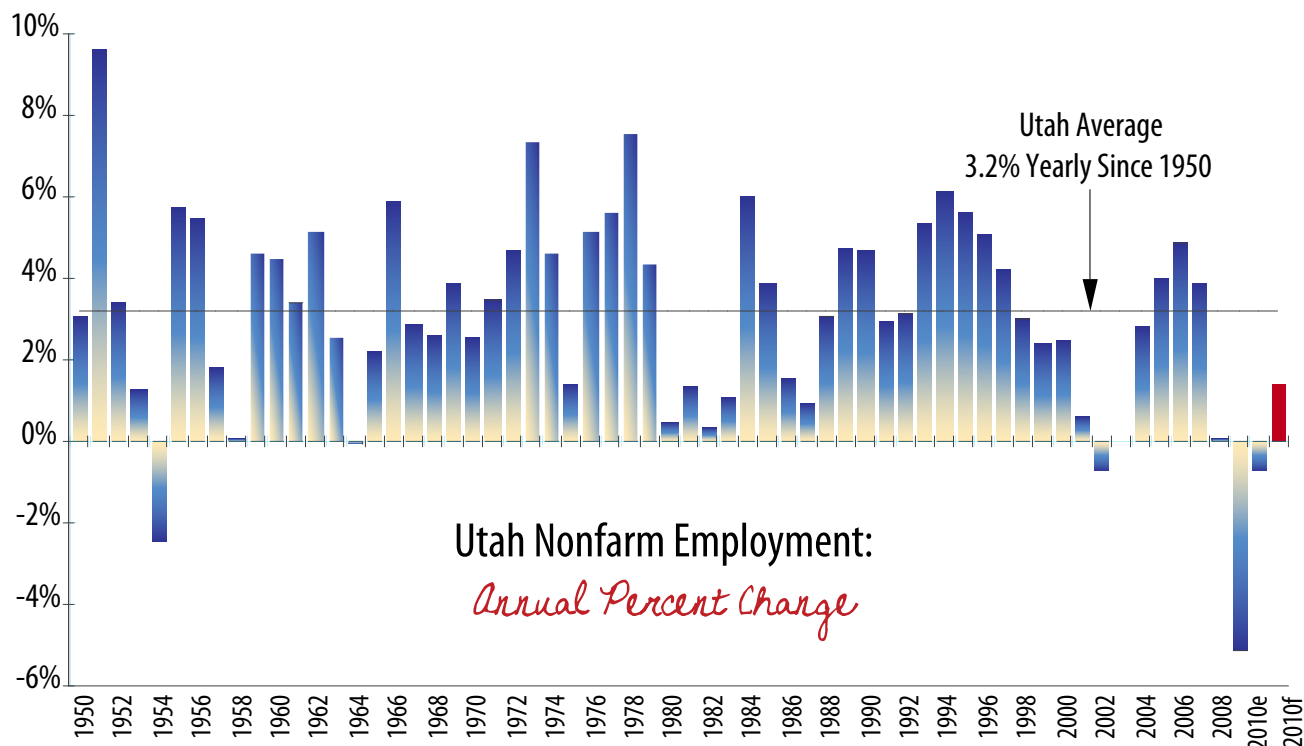
will be the housing market that signals when its effects end. With the amount of foreclosures still on the market, with legal questions now arising as to who has the authority and the title to do the foreclosing, and the expected slow job market again in 2011, the negative factors weighing upon the housing market will still have life in 2011. There is a level of pent up housing demand brewing in Utah, but 2011 still does not look like the year when that demand can be released.

If the low level of forecasted GDP growth occurs in 2011 (something around the 2 to 2.5 percent range), business leader comments speculating that level of growth can probably be met with productivity gains and not worker additions is not only discouraging, but unfortunately valid. Productivity gains have been consistent of late, and low GDP growth can be met largely by just squeezing more productivity out of current workers. High business profit margins suggest that businesses have the wherewithal to hire, but until convinced of no

other option but to hire, businesses will be reluctant to hire.

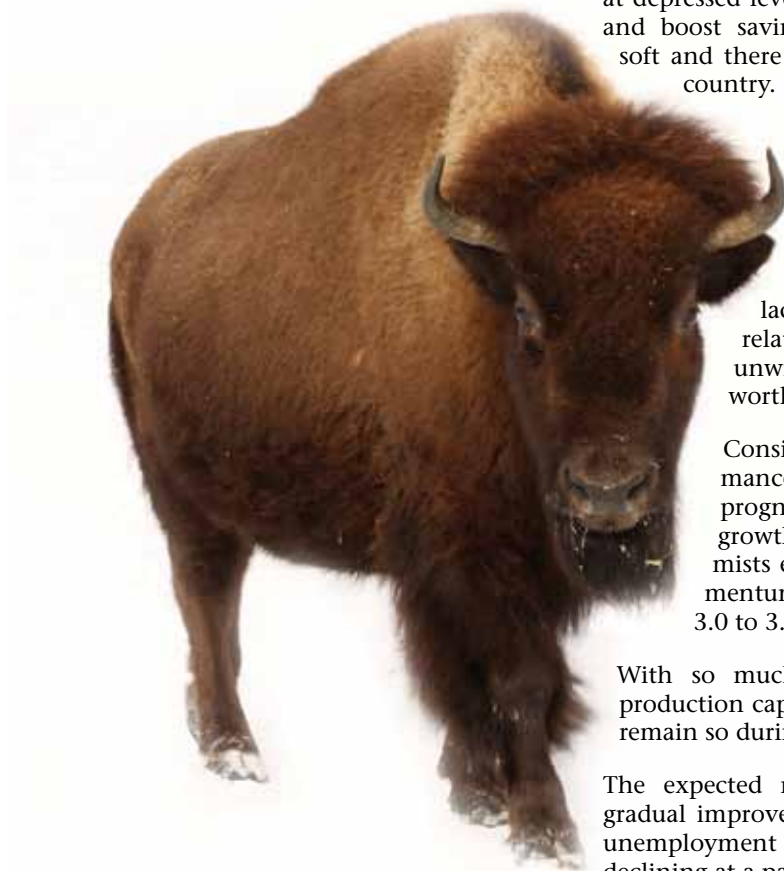
Capitalism rewards creativity, creativity breeds risk. Risk introduces psychology to the picture. How do those who unleash creativity currently feel about risk? The unfortunate answer is many business leaders feel gunshy toward risk. The recent recession swung the pendulum from little respect of risk to a loathing of risk. Alan Greenspan recently commented upon this phenomenon, opining that the business community needs a period of boredom before they are again willing to unleash the excitement of meeting risk head-on. The idea is that the pain of the recent recession is still fresh upon their minds, and that only time will erase that pain (which only a period of boredom can do). This seems to be a valid argument, and is another reason why 2011 is anticipated to be a "boring" year.

Workforce Services forecasts Utah employment growth of just 1.4 percent for 2011, with unemployment remaining high around 7 percent. ⓘ



Source: Utah Department of Workforce Services 2010e = estimate 2010f = forecast

# New Job Growth—Slow and Hopefully Steady



The longest and deepest recession in the U.S. since the 1940s officially lasted 18 months, from December 2007 to June 2009. While economic growth—increases in the production of goods and services—resumed in the summer of 2009, the pace of expansion has been slow. As 2010 came to an end, the unemployment rate was about 9.8 percent with over 15 million unemployed, about double the number of jobless than when the recession began three years ago. In addition there are about 9 million part-time workers who want full-time jobs, whose hours have been cut back or who can't find full-time work. Overall, the Bureau of Labor Statistics estimates that around 17 percent of the labor force (those who are working or who want to work) are unemployed or involuntary part-time.

Because of the sluggish pace of economic growth, businesses are reluctant to add jobs. With high unemployment and so much slack in the labor market, consumer confidence remains at depressed levels. Households are still working to trim debt and boost savings while housing prices and sales remain soft and there are serious foreclosure problems around the country.

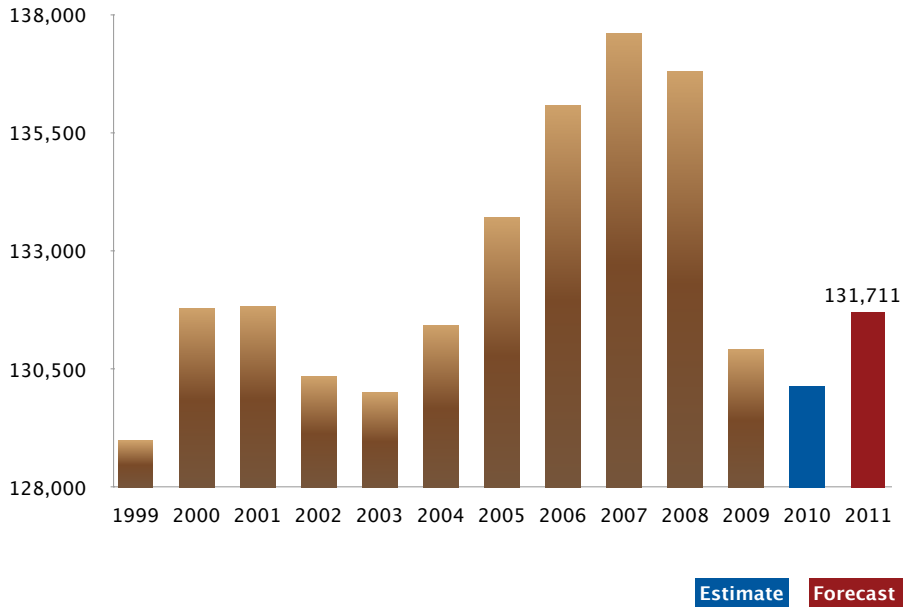
A robust economic expansion must be driven by increased consumer spending, business investment, new housing construction, and increases in exports. Without considerable job growth, the incomes and confidence of consumers and business to spend will be lacking. In addition, small businesses still face relatively tight credit conditions, as banks are unwilling or unable to lend but to the most credit worthy.

Consistent with the disappointing economic performance in the second half of 2010, many economic prognosticators have lowered their forecasts for growth during 2011. At the same time, most economists expect that the recovery will slowly gain momentum during 2011 reaching somewhere between 3.0 to 3.5 percent economic growth by years end.

With so much slack in the labor market and unused production capacity, inflation is very low and is expected to remain so during 2011.

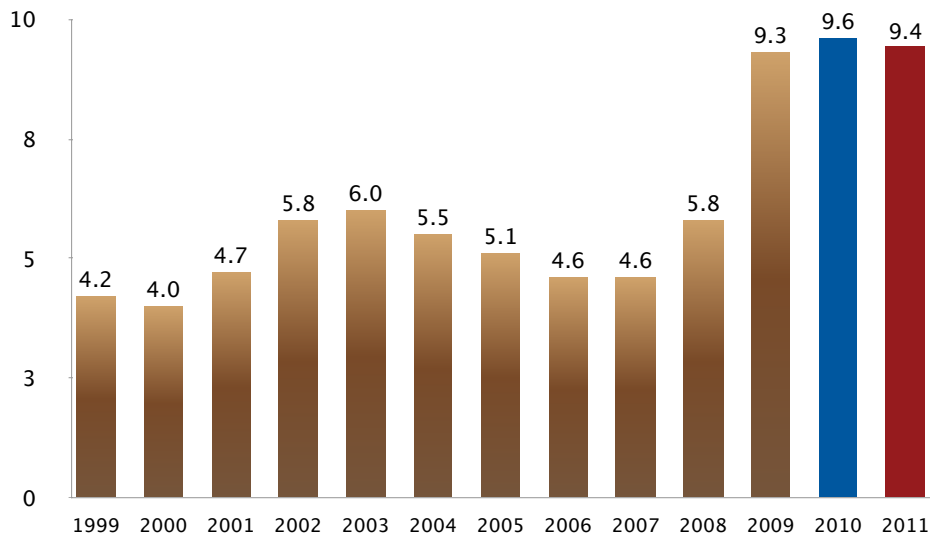
The expected modest new job growth will bring about gradual improvements in labor market conditions. Levels of unemployment and underemployment will remain elevated, declining at a painfully slow pace. ❶

## U.S. Annual Average Nonfarm Jobs



Levels of unemployment and underemployment will remain elevated, declining at a painfully slow pace.

## U.S. Unemployment Rate (percent)



Source: U.S. Bureau of Labor Statistics and Utah Department of Workforce Services.



## State of Utah

# GREEN JOBS SURVEY

Nowadays, the word “green” is commonly used to describe how economic activities positively impact the environment. From internal business practices to the global market place, the green label is being applied to economic inputs and outputs alike. But what does being green actually mean? And how is Utah’s economy affected by the green movement?

In an effort to answer these questions, Utah’s Department of Workforce Services (DWS) partnered with five other states (Montana, Wyoming, South Dakota, Nebraska and Iowa) to form the Rocky Mountain & Northern Plains Green Job Consortium.



The consortium was commissioned by the Federal Department of Labor to research the green economy by geographic

area, industry and occupation. To obtain information under those strata, it was determined that each state in the consortium would conduct a green jobs survey within their respective state. In Utah, DWS sampled over 11,000 establishments across 19 major industry sectors.

Prior to launching a survey, however, the consortium needed to construct an appropriate definition for green as it related to jobs and business activities. Was a secretary who put waste paper in a recycle bin a “green secretary”? If a business replaced old light bulbs with more energy efficient ones, was that a “green business”?

It turns out, what we really wanted to measure through a green jobs survey were economic activities that were different because they were green. A secretary’s job is the same whether he/she recycles waste or throws it in the garbage, and a bakery is going to engage in baking goods regardless of what type of light bulbs are in use. Converse-

ly, an electrician who knows how to repair a wind turbine might have a very different set of knowledge, skills and abilities than an electrician who wires residential buildings. Moreover, a business that operates to manufacture energy efficient light bulbs is specialized in a green area, whereas almost any business that uses light bulbs can upgrade to energy efficient ones. In short, for the purposes of this study, we defined a green job as one where the employee is directly performing green-related activities as part of their core-job duties. We defined a green business as a firm that primarily operates to produce a green economic product or service. The consortium then needed to classify what constituted a green-related activity. We came up with six green economic categories as shown at the right.

In the end, the Utah green jobs survey witnessed a statistically valid response rate of 47 percent. Over 400 companies reported having at least one green job and over 500 companies reported being engaged in a primary green activity. Some of the most commonly reported green jobs were environmental engineers, building contractors who specialize in green construction and energy managers. The most frequently reported green economic categories were Energy efficiency and conservation, sustainable agriculture and natural resource conservation and pollution, waste, and greenhouse gas management, prevention, and reduction.

Although the Rocky Mountain & Northern Plains Green Jobs Consortium is just beginning to interpret the major findings of the Green Jobs Survey, the research has proved encouraging. We are gaining a better understanding of what “green” means for Utah, its economy and its workforce, and we look forward to be able to report more information as it is uncovered. ⓘ



*The consortium needed to classify what constituted a green-related activity and developed six green economic categories as shown below.*



CATEGORY	EXAMPLES
Renewable Energy and Alternative Fuels	Manufacturing, construction, research, or delivery of wind, solar, biomass, hydro, geothermal, methane and waste incineration as a fuel source.
Energy efficiency and conservation	Manufacturing, construction or installation of energy efficient products such as weatherization, retrofitting and transportation technology.
Pollution, waste, and greenhouse gas (GHG) management, prevention, and reduction	Reducing greenhouse gas emissions, waste water and other pollutants.
Environmental cleanup and restoration, and waste clean-up and mitigation	Clean-up and disposal of waste, hazardous materials and landfill restoration.
Education, regulation, compliance, public awareness, training and energy trading	Activities that educate on energy efficiency, energy rating system certifications, enforcement of compliance requirements and training on effective use of energy related products and processes.
Sustainable agriculture and natural resource conservation	Low carbon and organic agriculture, land management, water management and conservation, wetlands restoration and environmental conservation.

# Utah's

## New Occupational Projections 2008-2018—Part Deux



**IF YOU DON'T WANT  
TO GET A LOT OF  
TRAINING, YOU'LL  
PROBABLY FIND A  
JOB, ALTHOUGH IT  
MAY NOT PAY THE  
TYPE OF WAGES  
YOU'D LIKE.**

In last month's issue of TrendLines magazine, I wrote an article outlining our recently released occupational projections. Since we do projections for roughly 780 individual occupations, you know I didn't get very detailed in that two-page article. Hopefully, this article will add a little "meat" to the "bones" of the previous report. If you missed that discussion, I'd suggest you take a few moments to read it (<http://jobs.utah.gov/wi/pubs/trendlines/novdec10/theoutlook.pdf>) so you can understand some of the nuances of the data.



Part one in last issue.

### *Not Much Glamour Here*

Understanding where we are helps us understand where we are going. Occupations with high employment today will likely show high employment in the future. We're talking about significant portions of the labor market—they don't change quickly. It just might make sense to take a moment to look at the chart with the most common occupations in Utah. Typically they aren't the "glamour jobs" or the high-paying jobs—they are the cashiers, the fast food workers, the secretaries, the truck drivers, the nurses and the janitors that we meet almost every day. However, together these top-ten occupations account for

a whopping 19 percent of total employment in Utah.

Not only are these occupations large, but many of them also have high replacement rates. You'll notice that many of the occupations in the top-ten most common occupations are ALSO among those with the most projected openings. These top-ten opening producers are expected to account for 22 percent of all the new openings in Utah between 2008 and 2018. Again, for the most part, they are not particularly exciting or "sexy." But, they are an integral part of Utah's labor market.

### *Show me the fast growing jobs!*

The number of openings an occupation produces is the best indicator of demand. However, growth rates can also quickly reveal how our labor market is changing. In this case, we'll look at occupations with at least 100 annual average openings to exclude small occupations where minute employment gains can result in huge percent changes. (For example, an occupation with one job adds another and suddenly you've got 100-percent growth.)

In total, employment in Utah is expected to show a 2.1 percent average annual growth rate between 2008 and 2018. The top-ten fastest growing occupations all show expansion rates that at least



Utah Occupations with the  
**HIGHEST  
 EMPLOYMENT**  
 2008

Retail Sales Workers	45,250
Cashiers	32,570
Customer Service Reps.	30,900
Office Clerks, General	27,110
Fast Food Workers	26,500
Secretaries	26,160
Truck Drivers, Heavy	22,100
Supervisors of Retail Workers	20,750
Janitors and Cleaners	20,300
Registered Nurses	19,790



Source: Utah Department of Workforce Services.

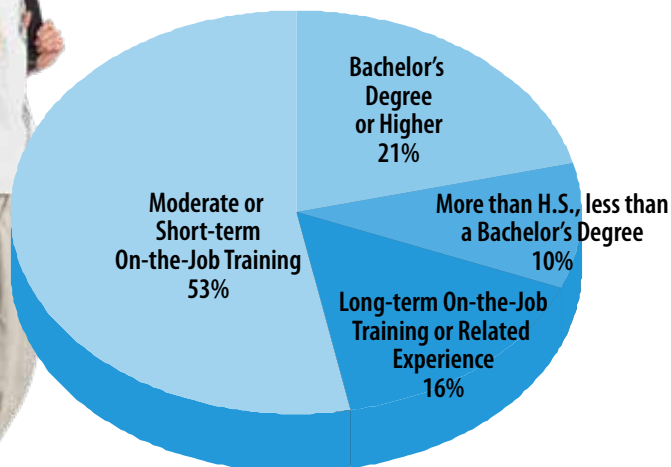
Utah Occupations  
**ANNUAL  
 OPENINGS**  
 2008-2018



Source: Utah Department of Workforce Services.



## Utah Job Openings by TRAINING LEVEL 2008–2018



Source: Utah Department of Workforce Services.

double the average. In this chart you'll notice that almost all the fastest growing jobs are related to healthcare. Nevertheless, a number of these healthcare positions are relatively low-skilled. Computer-related occupations also show relatively high rates of growth.

### *High-Pay; High Demand*

You've surely noticed that the occupations with the most projected openings in Utah are generally far from the highest-paying. What are the best-paying occupations which also show a respectable level of demand? For this chart, we've used the same group of occupations with at least 100 average annual openings and then ranked the top-ten highest paying of those occupations.

Lawyers come out on top—but, remember over-supply may be an issue in a small state with two law schools. Again, computer-related and healthcare jobs make up a notable share of these positions. However, in this case, they are jobs with high education levels and analytic/technical skills. Your mom was right—education pays.

### *Finally... What about education?*

Most of the jobs with the highest levels of openings aren't necessarily those with the highest education levels.

In fact, more than half the projected openings in Utah from 2008-2018 require moderate on-the-job training or less. The long-term occupational training occupations (which often include a classroom component) are expected to generate 16 percent of openings. Associate degrees and post-secondary technical training are projected to account for 10 percent of openings. And, occupations requiring at least a Bachelor's degree should create 21 percent of openings.

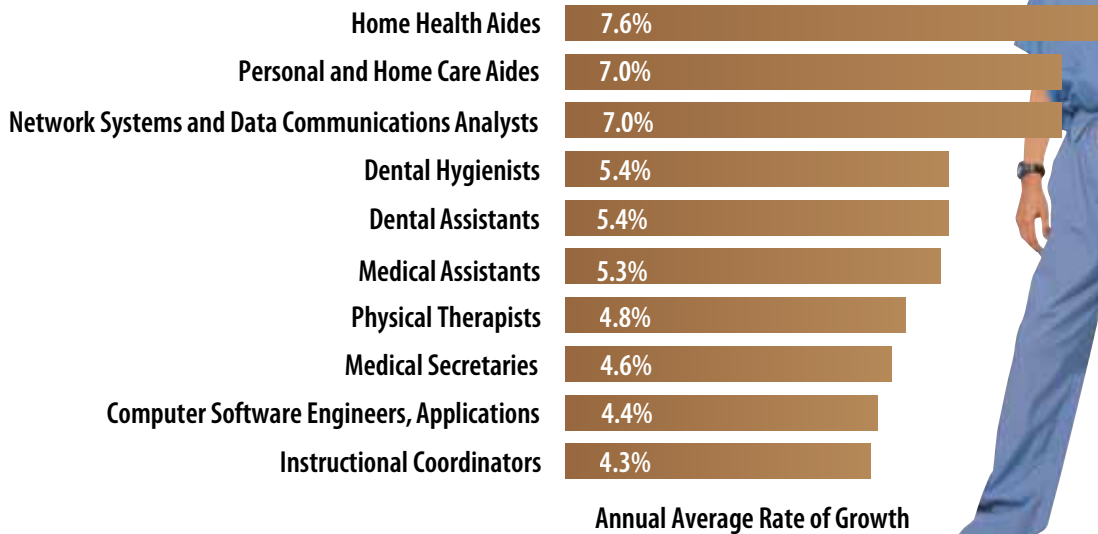
The good news? If you don't want to get a lot of training, you'll probably be able to find a job. The bad news? It probably won't pay the type of wages to which you'd like to become accustomed. In fact, every year, more and more jobs require a higher-level of training and/or education. If you want a good-paying, high-demand job, you're going to need some education and/or training. In fact, to get the higher-paying jobs which don't require post-high school education, you'll probably have to put in an equivalent amount of time on-the-job. Plus, your earnings potential is unlikely to ever reach that of most college-educated individuals. ❶

For more information about our occupational projections, see: <http://jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do>

## WHAT ARE THE BEST-PAYING OCCUPATIONS WHICH ALSO SHOW A RESPECTABLE LEVEL OF DEMAND?

## FASTEST GROWING UTAH OCCUPATIONS

with 100 or More Annual  
Openings 2008-2018



Source: Utah Department of Workforce Services.

## HIGHEST PAYING UTAH OCCUPATIONS

with 100 or More Annual Openings  
2008-2018



Source: Utah Department of Workforce Services.

*So many questions...get the facts to help you make informed career decisions!*

## The Education & Training FACE of Utah Jobs Now and in 2018



One in five Utah jobs requires at least a bachelor's degree or higher. You have heard this statistic before, but how do we know? On the other end of the scale, what proportion of jobs in the state require virtually no training past a "short demonstration?" Is the pay different for different training levels? In this edition of Trendlines under Economic News you will find an article on the Utah Job Outlook. It presents job demand information about occupations in Utah between 2008 and 2018. Education and training requirements of these occupations are another dimension of the job outlook data.

### **Education and Training Levels – Defined**

The U.S. Bureau of Labor Statistics uses a training classification system that assigns one of eleven training codes to all the 700+ occupations in the system. The assignment is based on "the most significant source" of education and training for the occupation based on research conducted by the Bureau. The 11 classifications of training are listed at the right.

### **The Data**

DWS produces occupational projections biennially. That means every other year we spend months creating industry and occupational projections that describe the Utah job market. The current set of projections includes the 2008 to 2018 period. Estimates of employment and job openings are generated for each of the some 750 occupations in the State. These data include the employment or number of jobs in the base year—2008, the projected year—2018, new jobs created between 2008 and 2018, and the number of annual average job openings expected over that period. A training code is assigned to each occupation, as well as the 2009 median occupational wage. These

data are shown in the three graphs, one for 2008 and 2018, and one for the new jobs between 2008 and 2018. Those five training levels requiring at least a bachelor's degree are combined into one pie piece. All the wage data is referenced to May of 2009. No projections of wages are made.

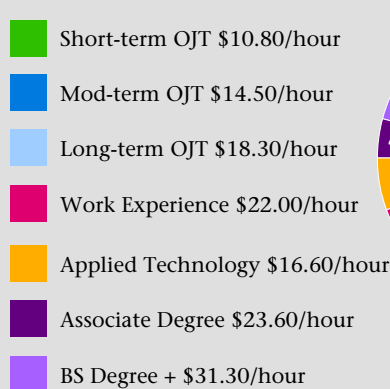
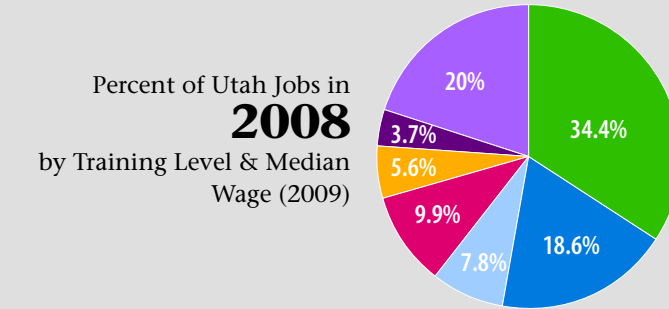
### What's Happening

The training requirements of Utah jobs are relatively stable and have not changed much over the last 20 to 30 years. The trend in training requirements is clear. Jobs in Utah, and other states and the nation, will require more training in the future. The sophistication and heavy infusion of new technology has impacted the labor market. This phenomena has had varying levels of impact in the array of occupations. Most of the impact is in the occupations that call for higher levels of academic training and particularly in the science and technology-oriented fields.

Still, the occupational structure of the job market changes slowly. For example, the occupations requiring a bachelor's or higher degree accounted for 20.0 percent of all 1.4 million jobs in the state in 2008. The percent of these jobs in 2018 is estimated to be 20.7 percent. Of all the new jobs over the 10-year period, 23.8 percent will be in this category, reflecting the growing trend for more education and training.

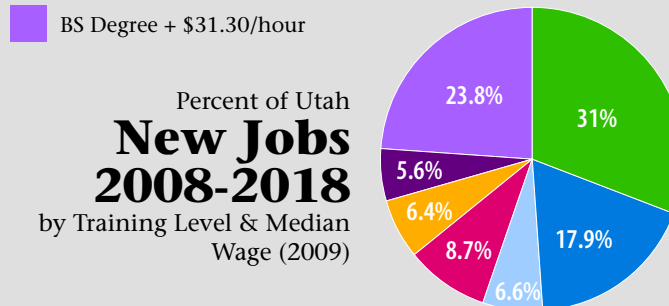
On the other end of the training continuum—the short-term on-the-job training occupations—continue to account for just over one-third of all employment. This pie piece has not changed dramatically. The job market still calls for low-skilled labor in volume. This pie piece is the largest of all. The share of jobs in short term on-the-job

Percent of Utah Jobs in  
**2008**  
by Training Level & Median  
Wage (2009)



Percent of Utah  
Jobs in  
**2018**  
by Training Level  
& Median Wage  
(2009)

Percent of Utah  
**New Jobs**  
**2008-2018**  
by Training Level & Median  
Wage (2009)



Source: Utah Department of Workforce Services, Workforce Research and Analysis, September 2010.

## CLASSIFICATIONS OF TRAINING

1. First Professional Degree
2. PhD
3. Masters
4. Bachelor's + Experience
5. Bachelor's
6. Associate
7. Applied Technology
8. Work Experience
9. Long-Term On-the-Job Training (one year or longer may include classroom training)
10. Moderate-Term On-the-Job Training (one month up to one year OJT)
11. Short-Term On-the-Job Training (short demonstration to one month OJT)



training is, however, shrinking. Note on the graph in 2008 the proportion is 34.4 percent compared to a smaller 33.8 percent share in 2018. Just because these unskilled jobs don't require much more than short demonstration to become proficient doesn't mean the workers in these jobs are uneducated. Most of the applicants and workers have high school diplomas.

The job market in occupations requiring more education and training is expanding and the market for occupations calling for work experience and less training is shrinking. Bachelor's and higher-degreed occupations and associate and applied technology occupations are experiencing higher than average (2.1 percent per year) growth as compared to the occupations requiring less training. These other jobs with lower training requirements are not declining in absolute terms, but slipping in their share of total jobs.

#### **Wages and Education and Training**

Yes, there is a relationship between higher training required and higher wages. The graphs show the median hourly rate (in 2009 dollars) for each of the pie pieces. Higher than the state median of \$18.10 per hour rates are evident for all four of six of the more education and training categories. The highest paid was for the Bachelor's or

higher with an hourly median wage of \$31.30. Wages for occupations requiring an associates degree or applied technology education were \$19.40 per hour and \$22.00 per hour, respectively.

#### **Over-Educated?**

About 28 percent of Utahns age 25 and over have a bachelor's degree or higher. Twenty percent of Utah jobs require a bachelor's degree or higher. Is this a massive mis-match in the job market and Utah's population? Here two different data sources are at play. Utah's population is educated and the emphasis in our society, schools, legislature, and in general is to promote education. Education for education's sake is a real positive attribute in our society. The more education our citizenry has the better the society and standard of living is. On the other hand, some say we need to train our young people in just the skill they need to get a job. The answer is not simple and our state has been debating this question for decades, but that's food for thought for another time. ①

About 28 percent of Utahns age 25 and over have a bachelor's degree or higher, yet only 20 percent of Utah jobs require a bachelor's degree or higher. Is this a massive mis-match?





# Registered Apprenticeship

## What was old is new again



Registered Apprenticeship has been around since 1937; it was President Franklin D. Roosevelt's solution to the work shortage of the Great Depression. Get a master of a trade to teach their apprentices to be masters using a set of training tools and pay them while they learn. Guess what? It is still a great idea.

The Office of Apprenticeship with the U.S. Department of Labor is still helping companies to set up training plans and their pay schedules. The participating companies' workers go to school part time and work full time, and learn how to become journeymen in over 1800 occupations. Apprenticeships help companies keep workers who become valuable members of the company by increasing skills and creating loyalty. It is a great way for workers to advance in a career choice while earning money to live on. For more information go to: [www.doleta.gov](http://www.doleta.gov) and see what all the noise is about. ⓘ

- Occupations and industries are classified quite differently. An industry refers to a set of like business activities through which establishments can be grouped. An occupation refers to a set of like job duties through which workers can be grouped. For instance, a restaurant is in the Accommodation and Food Services industry, whereas a waiter is in the Waiters and Waitresses occupation.
- The majority of occupations are common to many different industries. Consider the following: While it is certainly common that an accounting firm in the professional, scientific, and technical service industry would employ accountants, firms like hospitals, manufacturing plants and construction companies do as well. ⓘ

To see how statistics differ by industry and occupation, see the tables below.

Industry	Year/Qtr.	Employer Worksites	Average Quarterly Emp.	Average Annual Wage*
Health Care and Social Assistance	2010/02	6,872	133,691	\$36,248

Occupation	Estimated Employment	Inexperienced Wage	Average Wage	Median Wage
Registered Nurse	17,673	\$46,370	\$59,370	\$58,070
Pharmacist	2,048	\$77,880	\$101,370	\$107,240
Physical Therapists	1,083	\$47,180	\$67,540	\$67,940

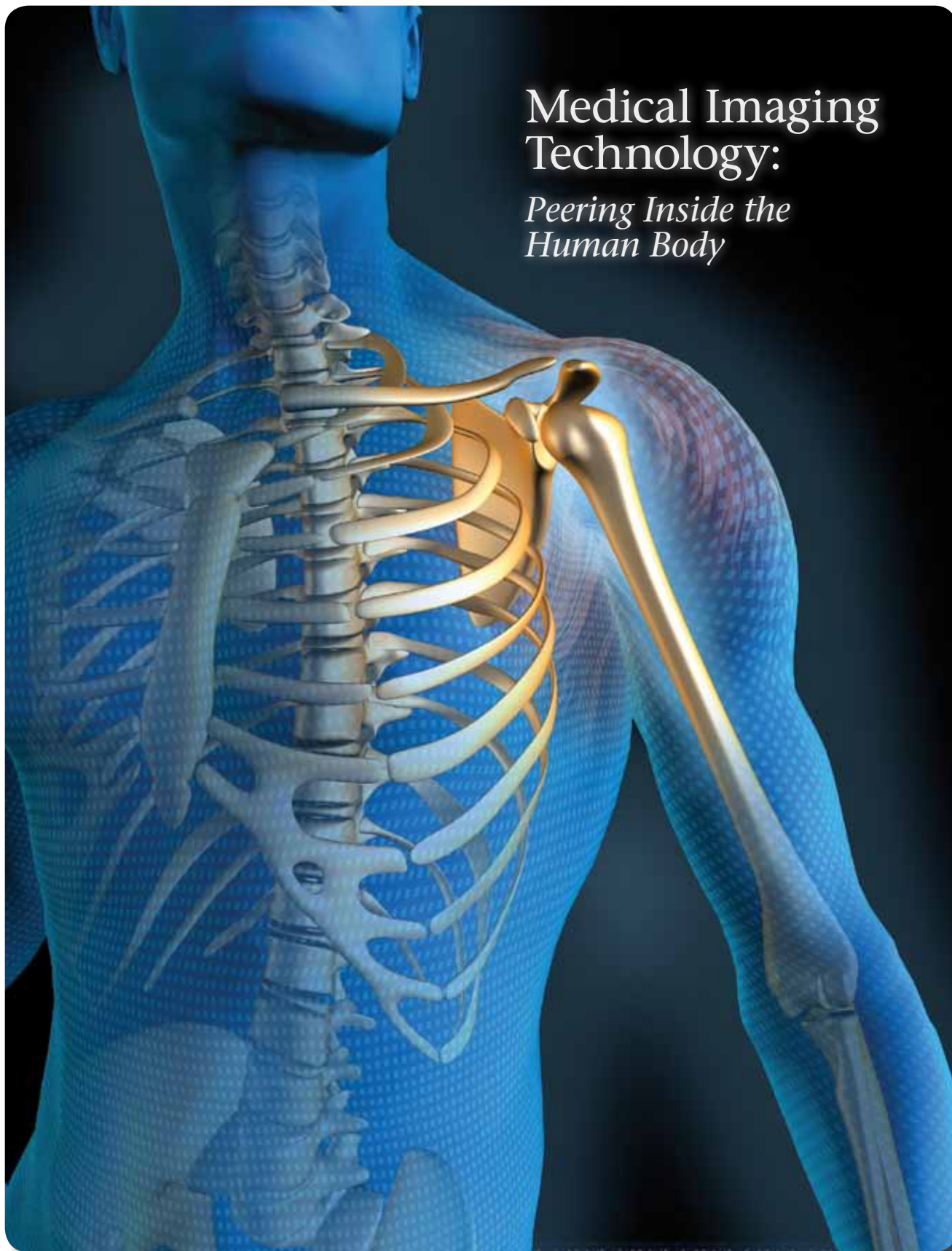
\*Based on extrapolating 2010/02 data to a full year. Data includes annual earnings for part-time workers.  
Data taken from Occupational Employment Statistics program, 2009.



# Did you know?

# Medical Imaging Technology:

*Peering Inside the Human Body*



Prior to the 1970s, physicians had only X-rays to rely on for examination of the interiors of their patients' bodies. After that time, new technology was developed that allowed physicians to access three-dimensional images of the body, its organs and tissues and provide early diagnoses for many illnesses. With the new technologies came the technologists and technicians who administer the procedures and report findings to physicians.

Cardiovascular technologists conduct tests on pulmonary function, lung capacity, cardiac (heart) and peripheral vascular (blood vessel) ailments. Treatments involve both invasive procedures (those that require incision into the body or removal of tissue) such as cardiac catheterization and angioplasty and non-invasive procedures such as echocardiography. Cardiovascular technicians take EKGs which trace electrical impulses in the heart.

Nuclear medicine technologists prepare and administer radiopharmaceuticals to patients and then monitor the characteristics and functions of tissues or organs in which the drugs localize. Nuclear medicine differs from other diagnostic imaging technologies because it determines the presence of disease on the basis of metabolic changes rather than changes in organ structure.

Radiological technologists specialize in the use of computed tomography (CT), X-rays, Computed Axial Tomography (CAT), Magnetic Resonance Imaging (MRI) or mammography. CT/CAT/MRI scans process cross-sectional

x-rays of an area which yield a three-dimensional image. Mammography uses low dose x-ray systems to produce images.

Diagnostic medical sonographers operate equipment that directs high frequency sound waves into specific areas of a patient's body. Reflected echoes form an image that is videotaped, transmitted, or photographed for interpretation and diagnosis by a physician.

These technologists may specialize in obstetric and gynecologic or abdominal or neurological sonography. The best known use of sonography is the ultrasound, an examination of a fetus to track its growth and health.

The most prevalent level of education attained by all these technologists is the 2-year associate degree at a junior or community college. Most technologists are employed by hospitals some of which may also provide training. Most states require licensure or a professional credential.

Technologists with multiple professional credentials, trained in a variety of procedures, will have the best prospects since competition is keen in most of these occupations. ⓘ



## Utah Occupational Wages for Medical Imaging Technologist

Occupation	Annual Median in Utah
Cardiovascular Technologist	N/A for Utah; \$48,300 for US
Nuclear Medicine	\$64,690
Radiology/MRI Technologist	\$45,040
Diagnostic Medical Sonographer	\$60,820

*Data from May 2009, Utah Occupational Explorer, Department of Workforce Services.*



An architectural line drawing of a two-story house with multiple windows and a chimney. In the foreground, a rolled-up document, likely a building permit, is visible. The permit has the words 'BUILDING PERMIT' printed on it in large, bold, blue letters. Above the permit, the words 'Housing Permit Data' are written in a large, bold, black font. The background is a light beige color.

## Housing Permit Data

# SEPARATE AND UNEQUAL

## and Surprising

Since the collapse of the housing-market bubble, pundits have engaged in their fair share of hand-wringing over the construction industry—and rightly so. Here in Utah, we've lost thousands and thousands of construction jobs since the housing market began its long, slow deflation. (However, you might want to keep in mind that the levels of construction employment during the height of the boom were over-inflated due to artificial demand.) But, should the hand-wringing continue? Is building activity still plummeting?

### Location, Location, Location


Well, the answer to that question has a lot to do with where in Utah you live. Now keep in mind that 2008 and 2009 were indeed very dismal construction years, but. . . According to construction permit data released by the Utah Bureau of Economic and Business Research, so far this year (January to August), thirteen counties have seen an increase in the number of new home permits issued compared to the same time period in 2009. In Morgan, Tooele, and Sanpete counties, permits have basically doubled or tripled. Of course, that is an improvement from a low level, but improvement nonetheless. In Washing-

ton County (undoubtedly the biggest past participator in housing speculation in Utah), dwelling permits are up 61 percent. And two of the big-four urban counties—Utah and Weber—show more home permits to-date this year than last.

### Who is to Blame?

Statewide, the number of permits is down 10 percent. You can mostly blame Salt Lake County with its 40-percent decrease for that state of affairs. However, remember that Salt Lake County was late to the housing boom and late to the housing collapse. Its current poor showing may be just a question of timing. And, as you can see from the chart, urban or nonurban categorization is no predictor of a county's current residential permit situation.

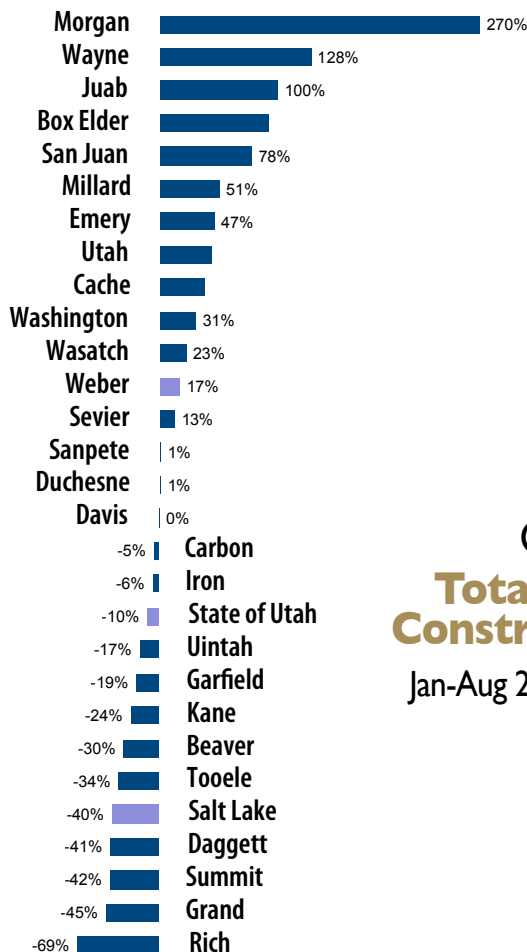
### Residential Dominates

For most counties, residential building does seem to dominate their performance when it comes to the total value of permitted construction. (Remember that most public projects are not permitted.) A good ranking in residential permitting in 2010 typically translates into a good position for overall permit values. 

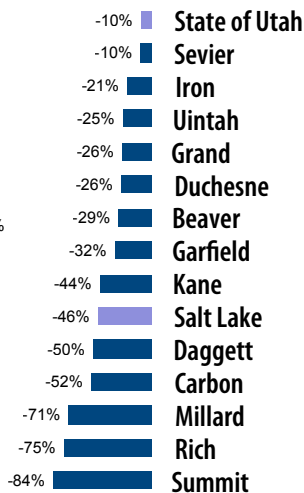
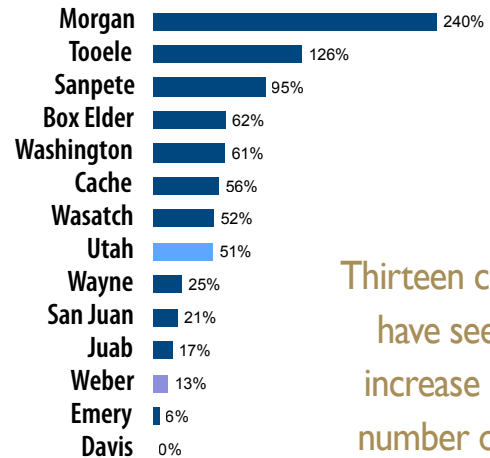
*For more information on construction permit data,  
go to: <http://www.bebr.utah.edu/CIDB.html>*

## Change in New Residential Permits

Jan-Aug 2009 to Jan-Aug 2010



Urban or Statewide  
Nonurban



Urban or Statewide  
Nonurban

Thirteen counties have seen an increase in the number of new home permits issued compared to the same time period in 2009.

## Change in Total Permitted Construction Values


Jan-Aug 2009 to Jan-Aug 2010

Source: University of Utah; Utah Bureau of Economic and Business Research.

# CACHE COUNTY

Nestled in a northern Utah valley is Cache County. Surrounded by the Wellsville Mountains to the west and the Bear River Mountains to the east the county enjoys moderate summers but cold frosty winters. That's why many retirees summer in Cache and head south during the winter.

About 115,000 people reside in the county with population passing the 100,000 threshold in 2004. Cache County's average age is much younger at 24.8 years compared to the State at 28.7 years or the nation with an average age of 36.9 years. Educational attainment is significantly higher because of the presence of Utah State University. The percent of population age 25+ with at least a bachelor's degree was 34.3 percent. That's much higher than the state average of 29.1 percent and the nation's 27.7 percent.

About 49,000 persons were employed in nonfarm jobs in 2009. The largest employer is Utah State University with about 6,000 workers. Manufacturing is also a very important industry with 10,100 workers. Over 3,200 worksites employ workers in the county paying out \$1.4 million in wages (2009). The average wage in the county in 2009 was \$2,400 per month. 

## 2009 CACHE COUNTY JOBS DISTRIBUTION BY INDUSTRY

INDUSTRY	PERCENT OF TOTAL
Manufacturing	20%
State Government	14%
Trade, Wholesale & Retail	13%
Educational & Health Services	11%
Professional & Business Services	10%
Local Government	10%
Leisure & Hospitality	8%
Construction	5%
Financial Activities	3%
Other Services	2%
Transp. & Utilities	2%
Federal Government	1%
Information	1%
Mining	0.01%

*Source: Utah Department of Workforce Services.*

*The Old Main building on Utah State University Campus.*



just  
the  
facts...

### October 2010 Seasonally Adjusted Unemployment Rates

Beaver	9.1 %
Box Elder	9.4 %
Cache	5.8 %
Carbon	8.2 %
Daggett	6.9 %
Davis	7.1 %
Duchesne	7.9 %
Emery	7.8 %
Garfield	11.3 %
Grand	11.7 %
Iron	9.2 %
Juab	11.4 %
Kane	8.6 %
Millard	7.0 %
Morgan	7.2 %
Piute	7.7 %
Rich	5.5 %
Salt Lake	7.5 %
San Juan	14.1 %
Sanpete	10.1 %
Sevier	8.0 %
Summit	7.6 %
Tooele	8.3 %
Uintah	7.2 %
Utah	8.0 %
Wasatch	9.2 %
Washington	10.2 %
Wayne	10.1 %
Weber	8.5 %

### October 2010 Unemployment Rates

Utah Unemployment Rate	7.4 %
U.S. Unemployment Rate	9.6 %
Utah Nonfarm Jobs (000s)	1,202.6
U.S. Nonfarm Jobs (000s)	131,594.0

### October 2010 Consumer Price Index Rates

U.S. Consumer Price Index	218.7
U.S. Producer Price Index	180.2

### Changes From Last Year

Up	0.9 points
Down	0.5 points
Up	1.2 %
Up	0.5 %
Up	1.2%
Up	4.3%

Source: Utah Department of Workforce Services

Watch for these features in our  
**Next Issue:**

**Theme:**  
Statewide Census Data  
**County Highlight:**  
Box Elder

**Occupation:**  
Home Health Aide



Utah Department of Workforce Services  
Workforce Research and Analysis Division  
140 E. 300 S.  
Salt Lake City, UT 84111

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## Did you know...

Most high school freshmen in Utah plan to go to college, but less than 20% graduate. While most jobs (65.8%) require some post-secondary training, only 20.8% require at least a bachelor's degree. Apprenticeship provides an excellent alternative to secure training and credentials.

For more information go to  
<http://www.utahtraining.org/>.



<http://jobs.utah.gov>